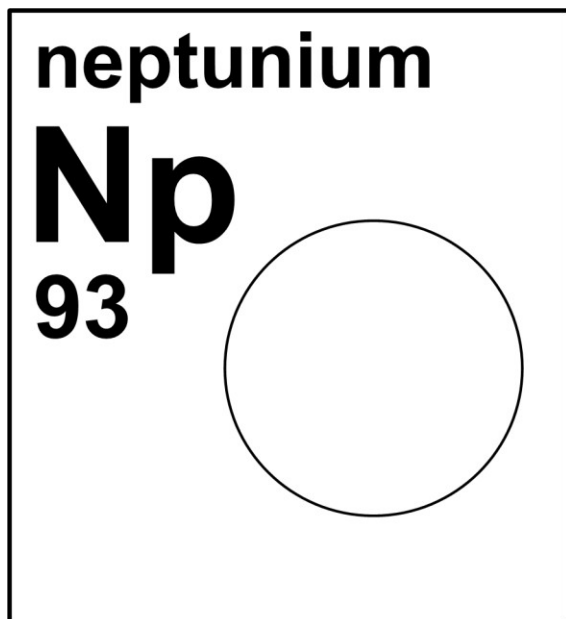


neptunium



Stable isotope	Atomic mass	Mole fraction
(none)		

Half-life of radioactive isotope

Less than 1 second
 Between 1 second and 1 hour
 Greater than 1 hour



²²⁵ Np	²²⁶ Np	²²⁷ Np	²²⁸ Np	²²⁹ Np	²³⁰ Np	²³¹ Np	²³² Np	²³³ Np	²³⁴ Np
²³⁵ Np	²³⁶ Np	²³⁷ Np	²³⁸ Np	²³⁹ Np	²⁴⁰ Np	²⁴¹ Np	²⁴² Np	²⁴³ Np	²⁴⁴ Np

Important applications of stable and/or radioactive isotopes

Isotopes in nuclear physics

- ²³⁷Neptunium is used in the production of ²³⁸Pu, which is an alpha emitter used in thermoelectric generators and radioisotope heater units. The ²³⁷Np captures a nucleus $^{237}\text{Np} + ^1_0\text{n} \rightarrow ^{238}\text{Np} \rightarrow ^{238}\text{Pu}$. The ²³⁸Np nucleus undergoes beta-minus decay to ²³⁸Pu, with a half-life of 2.117 days.
- ²³⁷Neptunium is fissionable and can be used in fast neutron reactors or in nuclear weapons.